

Weekly Report (2014.06.30-2014.07.07)

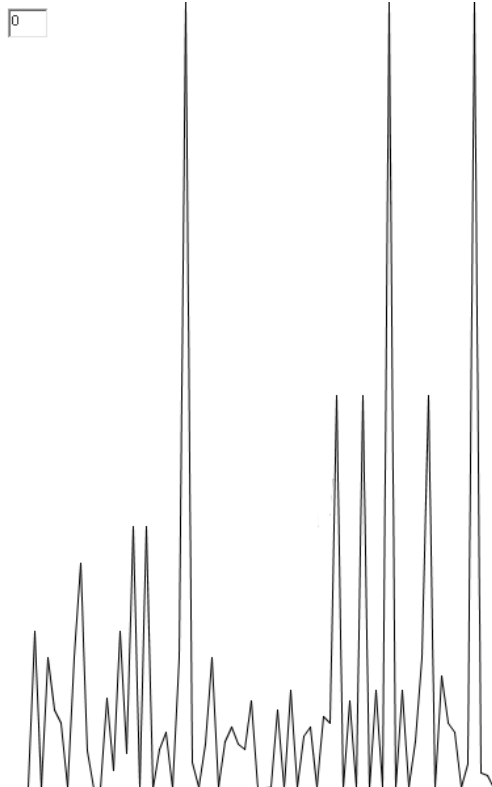
GuoFangzhou

1. Mobile Data

This week I mainly focused on how to solve the ping-pong effects.

First of all, in order to know the shape of the trajectories, I drew each base's trajectory one by one and the correspond speed graph.

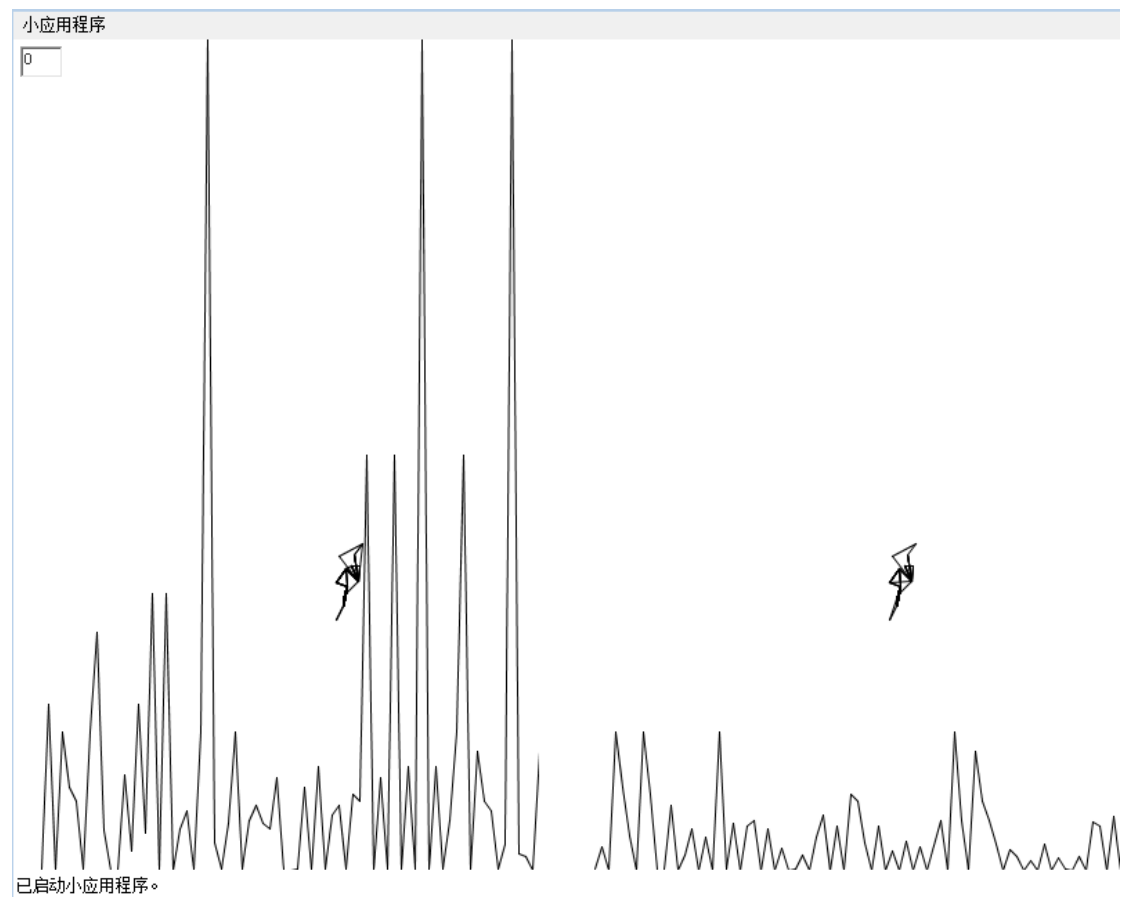
I found that the trend of speed is unlike the trend of some object that moves with uniform speed. The graph is like this:



Zero and non-zero show up in turn, therefore I decided to roughly process the path by deleting the nodes when speed is up to 150m/s.

I drew both the trajectory of origin path and filtered path and the speed of these paths.

The result of the longest path is:



The curve of speeds is obviously optimized, and the amount of node in the path decreases from 9495 to 7409 and the shape of the path doesn't change much. I checked about 100 paths and I think this method works well but not good enough.

Next week I will find some more ways to deal with the ping-pong effect.

I think an evaluation function is needed, which judges how good the filtered path.

2. Survey

On progress.

I finished the first two chapters, and looking for more papers of traffic visualization.